Docket No. AUS9-2000-0632-US1

CLAIMS:

What is claimed is:

1. A method in a node within network computing system for selecting a master, wherein the node is associated with a first priority, the method comprising:

sending requests to the network computing system to discover other nodes within the network computing system;

responsive to receiving a response to one of the requests from another node within the network computing system, identifying a second priority from the request;

shifting to a standby mode if the second priority is higher than the first priority; and

shifting to a master mode if no response is received from any node containing a priority higher than the first priority and if all nodes in the network have been discovered.

2. The method of claim 1, wherein the node is associated with a first unique value and wherein the response includes a second unique value for the another node and further comprising:

comparing the first unique value to the second unique value if the first priority is equal to the second priority; and

shifting to a standby mode if the first unique value identify is less than the second unique value.

3. The method of claim 2, wherein the first unique value and the second unique value are globally unique identifiers.

Docket No. AUS9-2000-0632-US1

4.   The method of claim 1, wherein the network computing system is a system area network.

5.   The method of claim 1, wherein the requests are system management packets.

6.   The method of claim 1 further comprising:
        polling the master in the network computing system in response to shifting to a standby mode.

7.   The method of claim 6, wherein the polling occurs periodically.

8.   The method of claim 6 further comprising:
        reinitiating the steps of sending, identifying, shifting to a standby mode, and shifting to a master mode if a response to polling of the master is absent.

9.   The method of claim 8, wherein the response to polling of the master is considered absent if a response is not received from the master within a selected period of time and commensurate to the poll operation not completing after the poll operation has been retried a predetermined number of times.

10.   The method of claim 1, wherein the steps of sending, identifying, shifting to a standby mode, and shifting to a master mode are initiated prior to initialization of an operating system for the node.

11. The method of claim 1, further comprising:

shifting from the master node into the standby node in response to receiving a message to handover mastership of the network computing system.

12. The method of claim 1, further comprising:

shifting to a non-active mode from the standby mode in response to receiving a message to shift to the non-active mode from the master.

13. A data processing system comprising:

a bus system;

a host channel adapter connected to the bus system, wherein the host channel adapter provides a communications link to a network computing system;

a memory including a set of instructions connected to the bus system; and

a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to send requests to the network computing system to discover other nodes within the network computing system; identify a second priority from the request in response to one of the requests from another node within the network computing system; shift to a standby mode if the second priority is higher than the first priority; and shift to a master mode if no response is received from any node containing a priority higher than the first priority and if all nodes in the network have been discovered.

14. The data processing system of claim 13, wherein if the data processing system has an equal priority as

Docket No.   AUS9-2000-0632-US1

compared to a highest priority received from another node
in the network, the processing unit compares a globally
unique identification from a request of the another node
to a second globally unique identification for the data
processing system to determine whether to shift into a
master mode.

15.   A network computing system comprising:
        fabric, wherein the fabric facilitates transfer of
data; and
        a plurality of nodes connected to the fabric,
wherein a node within the plurality of nodes has a first
priority and sends requests to discover other nodes
within the network computing system, identifies a second
priority from the request in response to receiving a
response to one of the requests from another node within
the network computing system, shifts to a standby mode if
the second priority is higher than the first priority
node, and shifts to a master mode if all nodes have been
discovered and a response containing a priority higher
than the first priority the node is absent in responses
received by the node.

16.   A network computing system for selecting a master,
wherein the node is associated with a first priority
comprising:
        sending means for sending requests to the network
computing system to discover other nodes within the
network computing system;
        identifying means, responsive to receiving a
response to one of the requests from another node within

Docket No. AUS9-2000-0632-US1

the network computing system, for identifying a second priority from the request;

first shifting means for shifting to a standby mode if the second priority is higher than the first priority; and

second shifting means for shifting to a master mode if a response containing a priority higher than the first priority is absent in responses received by the node and if all nodes in the network have been discovered.

17. The network computing system of claim 16, wherein the node is associated with a first unique value and wherein the response includes a second unique value for the another node and further comprising:

comparing means for comparing the first unique value to the second unique value if the first priority is equal to the second priority; and

third shifting means for shifting to a standby mode if the first unique value identify is less than the second unique value.

18. The network computing system of claim 17, wherein the first unique value and the second unique value are globally unique identifiers.

19. The network computing system of claim 16, wherein the network computing system is a system area network.

20. The network computing system of claim 16, wherein the requests are system management packets.

Docket No. AUS9-2000-0632-US1

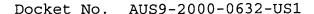21. The network computing system of claim 16 further comprising:

polling means for polling the master in the network computing system in response to shifting to a standby mode.

22. The network computing system of claim 21, wherein the polling occurs periodically.

23. The network computing system of claim 21 further comprising:

reinitiating means for reinitiating the sending means, identifying means, first shifting means, and second shifting means if a response to polling of the master is absent.

24. The network computing system of claim 23, wherein the response to polling of the master is considered absent if a response is not received from the master within a selected period of time and commensurate to the poll operation not completing after the poll operation has been retried a predetermined number of times.

25. The network computing system of claim 16, wherein the sending means, identifying means, first shifting means, and second shifting means are initiated prior to initialization of an operating system for the node.

26. The network computing system of claim 16, further comprising:

third shifting means from shifting from the master

Docket No.   AUS9-2000-0632-US1

node into the standby node in response to receiving a message to handover mastership of the network computing system.

27.   The network computing system of claim 16, further comprising:

third shifting means for shifting to a non-active mode from the standby mode in response to receiving a message to shift to the non-active mode from the master.

28.   A computer program product in a computer readable medium for use in a node within network computing system for selecting a master, wherein the node is associated with a first priority, the computer program product comprising:

first instructions for sending requests to the network computing system to discover other nodes within the network computing system;

second instructions for responsive to receiving a response to one of the requests from another node within the network computing system, identifying a second priority from the request;

third instructions for shifting to a standby mode if the second priority is higher than the first priority; and

fourth instructions for shifting to a master mode if a response containing a priority higher than the first priority is absent in responses received by the node and if all the nodes have been discovered.